

WHAT IS CLAIMED IS:

1. A loading device for loading an information carrier into a recording/playback unit comprising a pair of gripping elements actuatable to grip the information carrier therebetween; a transport mechanism for moving the gripping elements during loading of the information carrier, the gripping elements being supported by the transport mechanism for movement relative to the transport mechanism; and a control mechanism for actuating the gripping elements when the gripping elements are moved by the transport mechanism.

2. The loading device according to claim 1 wherein the control mechanism is movable relative to the transport mechanism.

3. The loading device according to claim 1 wherein upon movement of the transport mechanism the control mechanism engages one of the gripping elements to move said one of the gripping elements relative to the other of the gripping elements.

4. The loading device according to claim 1 wherein the actuation of the gripping elements to grip the information carrier is counter to the force of a resilient member which normally biases the gripping elements to an open position wherein the gripping elements are disengaged from the information carrier.

5. The loading device according to claim 1 wherein the gripping elements are supported on the transport mechanism for rotation relative to the transport mechanism.

6. The loading device according to claim 1 wherein each of the gripping elements has a gripping surface for engaging the information carrier and an inclined peripheral profile.

7. The loading device according to claim 1 wherein the gripping elements grip a peripheral edge of the information carrier.

8. The loading device according to claim 1 further including a movable clamping system for securing the information carrier in an operative position relative to a drive system for playing or recording information on the information carrier and wherein the clamping system is connected to the transport mechanism.

9. The loading device according to claim 8 wherein the transport mechanism includes an actuating mechanism engageable with the clamping system and operative to move the clamping system between a disengaged position and an engaged position relative to the information carrier and the drive system.

10. The loading device according to claim 9 wherein relative movement between the transport mechanism and the clamping system actuates the actuating mechanism thereby moving the clamping system between the disengaged and engaged positions.

11. The loading device according to claim 8 wherein the transport mechanism and the clamping system are rotatable around a fixed shaft.

12. The loading device according to claim 2 wherein the movement of the control mechanism relative to the transport mechanism is produced by an actuating device.

13. The loading device according to claim 12 wherein the actuating device includes an edge.

14. The loading device according to claim 12 wherein the actuating device includes a movable element.

15. The loading device according to claim 14 wherein the movable element includes a groove.

16. The loading device according to claim 14 wherein a peripheral edge of the movable element actuates the actuating device.

17. The loading device according to claim 1 further including a device actuated by movement of the transport mechanism that prevents loading of a second information carrier into the recording/playback unit when a first information carrier is loaded in the recording/playback unit.

18. A loading device for loading an information carrier into a recording/playback unit comprising:
a pair of gripping elements actuatable to grip the information carrier therebetween;
a transport mechanism for moving the gripping elements during loading of the information carrier;

a control mechanism for actuating the gripping elements when the gripping elements are moved by the transport mechanism, the control mechanism being movable relative to the transport mechanism and wherein upon movement of the transport mechanism the control mechanism engages one of the gripping elements to move said one of the gripping elements relative to the other of the gripping elements; and

an actuating device for moving the control mechanism relative to the transport mechanism.

19. The loading device according to claim 18 wherein the actuating device includes an element that moves to accommodate information carriers of different size.

20. The loading device according to claim 19 wherein the movable element includes a groove.

21. The loading device according to claim 20 wherein a peripheral edge of the movable element actuates the actuating device.

22. The loading device according to claim 19 further including guides for the information carrier that are movable to accommodate information carriers of different size and wherein the movable element moves in response to movement of movable guides.

22. The loading device according to claim 18 wherein the actuation of the gripping elements to grip the information carrier is counter to the force of a resilient member which normally biases the gripping elements to an open position wherein the gripping elements are disengaged from the information carrier.

23. The loading device according to claim 18 wherein the gripping elements grip a peripheral edge of the information carrier.

24. A loading device for loading an information carrier into a recording/playback unit comprising:

a pair of gripping elements actuatable to grip the information carrier therebetween;

a transport mechanism for moving the gripping elements during loading of the information carrier;

a control mechanism for actuating the gripping elements when the gripping elements are moved by the transport mechanism;

a movable clamping system for securing the information carrier in an operative position relative to a drive system for playing or recording information on the information carrier, the clamping system being connected to the transport mechanism, wherein the control mechanism actuates the gripping element to release the information carrier when the information carrier is in the operative position; and

an actuating mechanism associated with the transport mechanism and engageable with the clamping system and operative to move the clamping system between a disengaged position and an engaged position relative to the information carrier and the drive system.

25. The loading device according to claim 24 wherein relative movement between the transport mechanism and the clamping system actuates the actuating mechanism thereby moving the clamping system between the disengaged and engaged positions.

26. The loading device according to claim 24 wherein the control mechanism is movable relative to the transport mechanism.

27. The loading device according to claim 26 wherein the movement of the control mechanism relative to the transport mechanism is produced by an actuating device.

28. The loading device according to claim 27 wherein the actuating device includes an edge.

29. The loading device according to claim 27 wherein the actuating device includes a movable element.

30. The loading device according to claim 24 wherein the actuation of the gripping elements to grip the information carrier is counter to the force of a resilient member which normally biases the gripping elements to an open position wherein the gripping elements are disengaged from the information carrier.

31. A loading device for loading an information carrier into a recording/playback unit comprising:

a pair of gripping elements actuatable to grip the information carrier therebetween;
a transport mechanism for moving the gripping elements during loading of the information carrier, the gripping elements being supported by the transport mechanism for movement relative to the transport mechanism; and

guide elements for guiding movement of the information carrier as the information carrier is loaded and unloaded from the recording/playback unit.

32. The loading device according to claim 31 further including a control mechanism for actuating the gripping element when the gripping elements are moved by the transport mechanism and wherein the control mechanism is movable relative to the transport mechanism.

33. The loading device according to claim 31 wherein the actuation of the gripping elements to grip the information carrier is counter to the force of a resilient member which normally biases the gripping elements to an open position wherein the gripping elements are disengaged from the information carrier.

34. The loading device according to claim 31 wherein the gripping elements are supported on the transport mechanism for rotation relative to the transport mechanism.

35. The loading device according to claim 31 wherein the gripping elements grip a peripheral edge of the information carrier.

36. The loading device according to claim 32 wherein the movement of the control mechanism relative to the transport mechanism is produced by an actuating device.

37. The loading device according to claim 36 wherein the actuating device includes an element that moves to accommodate information carriers of different size.

38. The loading device according to claim 37 wherein the movable element includes a groove.

39. The loading device according to claim 37 wherein a peripheral edge of the movable element actuates the actuating device.

40. The loading device according to claim 37 wherein the guide elements for the information carrier are movable to accommodate information carriers of different size and wherein the movable element moves in response to movement of movable guides.